REMARKS

At the time of the Office Action, claims 1-31 and 43-53 were pending in the application. Claims 43-53 are hereby canceled, and claims 1-31 remain pending in the application.

Amendment to the Specification

The amendment to the specification corrects an error in paragraph 0034 regarding the correct measure of alumina tri-hydrate in the composite material. This change does not reflect new matter because the correct measure was already reflected in claims 7 and 22 as originally filed, and in Table 7 of the specification as originally filed.

Rejection of Claims 1-7, 9, 11-22, 24 and 26-31 Under 35 U.S.C. §§ 102(b) and 103(a)

Claims 1, 3-5, 7, 9, 11-16, 18-20, 22, 24, and 26-31 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over, Japanese publication number JP 10-324762 ("JP '762") in view of *Plastic Additives* or *Fire Retardant Materials*.

Applicants recognize that a rejection under 35 U.S.C. §§ 102/103 may be made if appropriate as described in MPEP § 2112(III). However, MPEP § 2112(IV) provides the criteria that must be applied when rejecting a claim based on characteristics inherent in the prior art, including any rejection made in accordance with section 2112(III).

> The fact that a certain result or characteristic *may* occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art). . . . "*To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is* ***necessarily*** *present in the thing described in the reference*, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) . . . .
>
> "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic ***necessarily*** flows from the teachings of the

> applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) . . . .

MPEP § 2112(IV) (emphasis in original).

The law is clear. In order to maintain a rejection based on characteristics inherent in the prior art, the Examiner must show that the inherent characteristics are *necessarily* present in the prior art. In the present application, the Examiner acknowledges that JP '762 is silent with regard to the claimed ASTM properties. Therefore, the Examiner must show that the ASTM properties are necessarily present in the composition disclosed in JP '762. However, the JP '762 material differs in a number of ways from examples of the claimed composite material. Therefore, the applicant respectfully submits that it would be incorrect to conclude that such different materials must have the same properties.

For example, the composite material described in JP '762 consists of the following elements:

(a) 400-900 pts wt of ceramic hollow microparticles with some specific properties;
(b) 100-250 pts wt of glass powder;
(c) 100-250 pts wt of aluminum hydroxide;
(d) 5-30 pts wt of glass fiber;
(e) 100 pts wt of resol type phenol resin;
(f) 3-10 pts wt of a blowing agent;
(g) 10-50 pts wt of a curing agent; and
(h) some unspecified quantity of water.

The JP '762 material has a total weight in the range of 718 to 1590 pts wt, plus some amount of water.

Of the total weight of the JP '762 composite, the phenol resin contributes 100 pts wt. Therefore, even if every other component is kept to a minimum and no water is used, the maximum percentage of phenol resin is 13.9% of the total weight of the composite—100 (pts wt of resin) divided by 718 (minimum pts wt of total). If the maximum weight of the other components is used with no water, then the resin is 6.3%. The addition of water, in whatever quantity, will only lower the percent weight of resin. In no configuration of the composite described in JP '762 can the percent weight of resin equal the 17-21%, based on the total weight of the composite, described in paragraph 0032 of the present application. The Examiner offers no evidence that a composite having 6.3% resin by weight would *necessarily* exhibit the same properties as the claimed composite material.

Additionally, JP '762 teaches 5-30 pts wt of glass fiber. This equates to a maximum of 4.0% of the total weight of the composite. In contrast, the present application discusses an embodiment in which fiber makes up 63-77% of the total weight of the composite. JP '762 does teach the use of other filler materials such as the ceramic microparticles and glass powder. However, there is nothing to indicate that these other materials will give the composite the same attributes with respect to the claimed properties.

These comparisons are not offered with the intent of limiting the scope of the claims to a specific embodiment. Rather, these comparisons show that the composite taught by JP '762 differs significantly from embodiments and examples disclosed in the present specification. Therefore, the applicant respectfully submit that the Examiner has not met the required burden of showing that the inherent characteristics are *necessarily* present in the prior art.

As best understood by the applicant, it is the Examiner's position that because JP '762 discloses a composite material using some of the same components as the applicant's claimed material, the JP '762 material must have the same properties as the claimed material. The applicant does not believe that this position is correct. In fact, as discussed in the applicant's previous response, the specification of the current application clearly indicates that ***a composition containing the same fire resistant components would not necessarily meet the claimed properties***. For example, paragraph 0030 discusses and Table 6 shows compositions containing the same fire resistant components but not meeting the claimed properties. The paragraph states that, "[T]he results demonstrate that the mere addition of a commercially-available fire-resistant additive [e.g., alumina tri-hydrate] to a traditional composite is inadequate to provide a composite that has fire-resistance properties to satisfy [the claimed properties]."

The applicant also submits that the Examiner has misinterpreted the standard used in applying a rejection based on inherency. The Examiner states that "absent evidence to the contrary it is the examiner's position that JP 762 would inherently meet the claimed properties." However, the burden of showing inherency falls on the Examiner. MPEP § 2112(IV). It is not the applicants responsibility to show evidence of non-inherency. The burden of showing an unobvious difference only shifts to the applicant once the Examiner has shown both "a product

appearing to be substantially *identical*" and "evidence or reasoning tending to show inherency." The applicant does not believe that the Examiner has shown either.

Applicant respectfully submits that none of the prior art references relied on by the Examiner disclose a composition that necessarily meets the claimed properties. Applicant also respectfully contends that the Examiner has made no showing that the claimed properties would obviously have been present in the prior art products. Accordingly, Applicant requests that the rejection of claims 1, 3-5, 7, 9, 11-16, 18-20, 22, 24, and 26-31 be withdrawn.

Rejection of Claims 1, 2, 5, 8, 11-17, 20, 23, and 26-31 Under 35 U.S.C. § 103(a)

Claims 1, 2, 5, 8, 11-17, 20, 23, and 26-31 were rejected under 35 U.S.C. § 103(a) as obvious over Japanese publication no. 2000-351881 ("JP '881") in view of *Plastic Additives* or *Fire Retardent Materials* and further in view of JP '762. The applicant respectfully submits that the addition of JP '881 does not overcome the deficiencies discussed above with respect to JP '762. JP '881 does not offer any evidence that the claimed properties would necessarily be present in the prior art. Applicant respectfully requests that the rejection of claims 1, 2, 5, 8, 11-17, 20, 23, and 26-31 be withdrawn.

Conclusion

Applicants believe that all rejections and objections in the Office action have been addressed by the amendments and remarks above. If there are any questions regarding this Response, Applicants welcome a telephone call or interview with the undersigned Applicants' representative.

In the event that any fees are due, the Commissioner is authorized to debit those fees from the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS

Dated: 1 June 2007

By: _____

Robert D. Spendlove
Registration No. 53,629

Hunton & Williams, LLP
Intellectual Property Department
1900 K Street, N.W., Suite 1200
Washington, D.C. 20006-1109
(202) 955-1500 (Telephone)
(202) 778-2201 (Facsimile)